

AMENDMENTS TO THE CLAIMS

This listing will replace all prior versions,  
and listings, of claims in the application:

5     **Listing of Claims:**

163.       (currently amended) A device adapted to be used  
in a system for the assessment of at least one  
parameter of particles in a liquid analyte material,  
10     the a device comprising
- a sample compartment comprising an exposing domain,  
      said exposing domain allowing electromagnetic  
      signals from a sample in the exposing domain to  
      pass to a detection device and to form, in the  
15     detection device, a spatial image representation of  
      the exposing domain processable by processing means  
      of the detection device,
  - an inlet through which a volume of a liquid sample  
      representing the analyte material can be  
20     introduced,
  - a flow system comprising at least a channel allowing  
      at least a portion of the volume of the liquid  
      sample to flow within the device,
  - ~~and means for arranging the device in relation to~~  
25     the detection device, ~~, which detection device~~  
      ~~comprises detection means for quantitatively~~  
      ~~detecting spatial image data and processing means~~  
      ~~for processing the detected image presentation in a~~  
      ~~manner allowing electromagnetic signals from a~~  
30     ~~sample in the exposing domain of the device to pass~~

~~to the detection device and to form, in the  
detection device, a spatial image representation of  
the exposing domain processable by the processing  
means of the detection device and means for  
5 disengaging the device from the detection device  
after the detection by the detection means,~~  
- the device having no sample outlet.

164. (currently amended) A device according to claim  
10 163, wherein the flow system additionally comprises a  
compartment or a flow channel part in which or from  
which at least part of one or more reaction components  
initially loaded in the compartment or flow channel  
part is added to at least a portion of the volume of  
15 the liquid sample representing the analyte material.

165. A device according to claim 164, wherein at  
least one of the reaction components is in freeze-  
dried form.

20

166. (currently amended) A device according to claim  
163, wherein ~~the~~ part of the ~~flow~~ channel provides  
~~substantial~~ laminar flow ~~therethrough and/or comprises~~  
~~one or more mixing chambers~~ in the liquid sample.

25

167. (currently amended) A device according to claim  
163, wherein ~~the~~ part of the ~~flow~~ channel has at least  
one bend or obstruction resulting in ~~substantially~~  
turbulent flow in liquid passing the bend or  
30 obstruction.

168. (currently amended) A device according to claim 163, wherein the flow system comprises one or more means for regulating the velocity of the flow into, within, or out of the device, the velocity regulating means comprising means selected from the group consisting of: stop valves, one way valves, ~~and~~ pressure valves and/or speed reduction valves.

169. (currently amended) A device according to claim 163, ~~which~~ wherein the device comprises means for performing one or more operations on the liquid sample, the operations being selected from the group consisting of filtration, concentration and magnetic attraction.

170. (currently amended) A device according to claim 163, containing one or more compartment(s) or domain which allows en-spectrophotometric measurement for the determination of any chemical property, the spectrophotometric measurement ~~e.g., one or several of,~~ being selected from the group consisting of: mid-infrared attenuation, near-infrared attenuation, visible attenuation, ultra-violet attenuation, photoluminescence, raman scatter, and nuclear magnetic resonance.

171. (currently amended) A device according to claim 163, wherein the interior of the sample compartment has an average ~~thickness~~ depth of between 20  $\mu\text{m}$  and 2000  $\mu\text{m}$  ~~, preferably between 20  $\mu\text{m}$  and 1000  $\mu\text{m}$ , more preferably between 20  $\mu\text{m}$  and 200  $\mu\text{m}$ .~~

172. (currently amended) A device according to claim  
163, wherein sample compartment has dimensions, in a  
~~direction substantially~~ plane parallel to an exposing  
window, in the range between 1 mm by 1 mm and 10 mm by  
5 10 mm.

173. (currently amended) A device according to claim  
163, wherein the volume of the sample compartment from  
which electromagnetic radiation is exposed, is in the  
10 range between 0.01  $\mu$ l and 20  $\mu$ l, ~~more preferably in~~  
~~the range between 0.04  $\mu$ l and 4  $\mu$ l.~~

174. (new) A device according to claim 163, wherein  
the flow system comprises one or more mixing chambers.

15 175. (new) A device according to claim 163, wherein  
the interior of the sample compartment has an average  
depth of between 20  $\mu$ m and 1000  $\mu$ m.

20 176. (new) A device according to claim 163, wherein  
the interior of the sample compartment has an average  
depth of between 20  $\mu$ m and 200  $\mu$ m.

25 177. (new) A device according to claim 163, wherein  
the volume of the sample compartment from which  
electromagnetic radiation is exposed, is in the range  
between 0.04  $\mu$ l and 4  $\mu$ l.

30 178. (new) A device according to claim 163, wherein  
the device comprises a propelling means.

Atty. Dkt: P66610US0  
09/830,557